ClaimBuster: The Quest to Automate Fact-Checking

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Project Description: Dr. Chengkai Li and his group are developing ClaimBuster, an automated, live fact-checking platform. ClaimBuster aims to monitor live streams, websites and social media to catch factual claims, detect matches with a curated repository of fact-checks, and deliver the matches instantly to viewers; for professional fact-checkers, ClaimBuster will suggest new claims worth checking and provide computational tools that help the fact-checking process. This project, led by UTA, is a collaboration between computer scientists and journalism experts from UTA, Duke, Google Research, and Stanford. The team has developed a prototype of ClaimBuster, available at http://idir.uta.edu/claimbuster, which has been used to cover all democratic and republican debates so far for the 2016 Election. They fed closed captions of the debates on live TV broadcasts to ClaimBuster, which instantly scored each sentence and posted top ones to http://twitter.com/ClaimBusterTM. Post-hoc analysis of claims checked by professional factcheckers shows that they were scored high by ClaimBuster, indicating a highly positive correlation between ClaimBuster and professionals in deciding which claims are check-worthy. Now Claim- Buster is constantly retweeting check-worthy factual claims found on Twitter. The project has received substantial media coverage.

The growing movement of political fact-checking plays an important role in increasing democratic accountability and improving political discourse. Politicians and media figures make claims about "facts" all the time, but the new army of fact-checkers can often expose claims that are false, exaggerated or half-truths. There are now more than 90 active fact-checking organizations, including major media outlets such as CNN, the Washington Post and the New York Times as well as dedicated websites such as PolitiFact.com and FactCheck.org. The challenge is that voters and human fact-checkers frequently have difficulty keeping up with the rapid spread of misinformation. An important reason that the falsehoods frequently outpace the truth is that fact-checking is time-consuming. For fact-checkers, sifting through vast amounts of data and finding claims to check takes away time that ought to be spent on fact-checking itself. The consequence is that important claims do not get checked in time. For voters, even if the fact-check is already published, they must undertake research to look it up. The consequence is politicians get away with repeating the same false claims.

ClaimBuster tackles this challenge in several ways. By actively monitoring broadcast TV channels, online video streams, news articles, and social media, ClaimBuster detects a claim as it appears in real time. By instantly providing the voter a rating about a claim's accuracy if it has been fact-checked before, ClaimBuster mitigates repeated false claims. By recommending highly important new factual claims to professional fact-checkers, ClaimBuster will free journalists from the time-consuming task of finding check-worthy claims and help them prioritize their efforts in assessing the veracity of claims.

Project Deliverables: We will continue to develop ClaimBuster and accomplish the following components: a curated repository of past fact-checks by professionals; an algorithm for matching newly found claims with the repository of fact-checks; a full-fledged Twitter monitoring program for detecting factual claims in Tweets; a discussion forum for assisting fact-checkers analyze factual claims.

Budget: USD 102K for 2 years (51K per year)
- One Ph.D. student, 35.4K per year: Salary (2K*12) + fringe benefits (10%) + STEM tuition (avg. 9K).
- Dr. Li, 15.6K per year: 1-month summer salary (avg. 12K) + fringe benefits (30%)